

116TH CONGRESS
2D SESSION

H. R. 7417

To direct the Secretary of Defense to set sustainability goals for the Department of Defense, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 30, 2020

Mr. CASTEN of Illinois introduced the following bill; which was referred to the Committee on Armed Services

A BILL

To direct the Secretary of Defense to set sustainability goals for the Department of Defense, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “National Security Re-
5 siliency and Sustainability Act of 2020”.

6 **SEC. 2. RESILIENCY AND SUSTAINABILITY GOALS FOR THE**
7 **DEPARTMENT OF DEFENSE.**

8 (a) IN GENERAL.—For fiscal year 2021 and any sub-
9 sequent fiscal year, the Secretary of Defense shall—

1 (1) reduce energy intensity (measured in Brit-
2 ish thermal units per gross square foot) in buildings
3 of the Department by 2.5 percent annually through
4 the end of fiscal year 2027, relative to the baseline
5 energy use in buildings of the Department in 2008
6 by implementing efficiency measures.

7 (2) improve data center energy efficiency at De-
8 partment facilities by—

9 (A) ensuring the chief information officer
10 of the Department promotes energy optimiza-
11 tion, efficiency, and performance in data cen-
12 ters;

13 (B) installing and monitoring advanced en-
14 ergy meters in all data centers by 2023; and

15 (C) establishing a power usage effective-
16 ness target of 1.2 to 1.4 for new data centers
17 and less than 1.5 for existing data centers;

18 (3) ensure that electric energy and thermal en-
19 ergy in Department buildings are comprised of clean
20 energy, in amounts—

21 (A) not less than 28 percent for fiscal
22 years 2028 and 2029;

23 (B) not less than 33 percent for fiscal
24 years 2030 and 2031;

1 (C) not less than 37 percent for fiscal
2 years 2032 and 2033;

3 (D) not less than 39 percent for fiscal
4 years 2034 and 2035;

5 (E) not less than 42 percent for fiscal
6 years 2036 and 2037; and

7 (F) not less than 45 percent for fiscal year
8 2038 and each year thereafter;

9 (4) ensure that the percentage of the total
10 amount of electric energy consumed by the Depart-
11 ment that is clean energy is—

12 (A) not less than 28 percent for fiscal year
13 2025;

14 (B) not less than 30 percent for fiscal
15 years 2026 and 2027;

16 (C) not less than 33 percent for fiscal
17 years 2028 and 2029;

18 (D) not less than 37 percent for fiscal
19 years 2030 and 2031;

20 (E) not less than 40 percent for fiscal
21 years 2032 and 2033;

22 (F) not less than 43 percent for fiscal
23 years 2034 and 2035;

24 (G) not less than 46 percent for fiscal
25 years 2036 and 2037; and

1 (H) not less than 50 percent for fiscal year
2 2038 and each year thereafter;

3 (5) ensure that all clean energy capacity added
4 between 2021 and 2040 comes from sources based
5 on projects that are not in operation as of the date
6 of the installation or signing of any financial agree-
7 ment for the purchase of the clean electric or ther-
8 mal energy;

9 (6) include in the electric energy portion of the
10 clean energy requirements established in paragraphs
11 (3) and (4), and retain all renewable energy certifi-
12 cates and clean energy attributes for, clean electric
13 energy associated with—

14 (A) installing clean energy on site at De-
15 partment facilities;

16 (B) contracting for the purchase of energy,
17 which includes—

18 (i) the installation of renewable en-
19 ergy on site at a Department facility or off
20 site from a Department facility; and

21 (ii) the installation of clean energy op-
22 erating or owned by a third party on site
23 of a Department facility that is directly
24 serving local loads, and for which the facil-
25 ity has a commitment to procure, for a

1 contract period of not less than 10 years
2 and up to a period of 40 years, the lesser
3 of—

4 (I) 100 percent of clean energy
5 asset output; or

6 (II) 100 percent of facility energy
7 needs; and

8 (iii) a contract for differences with a
9 minimum off-take period of 10 years, and
10 up to a period of 40 years, for the installa-
11 tion of clean energy not physically located
12 on site at a Department facility nor elec-
13 trically connected to the facility, for which
14 the department agrees to procure the en-
15 ergy (in MWh), as well as corresponding
16 renewable energy certificates, and clean en-
17 ergy attributes, at a defined price for the
18 period of the contract;

19 (7) include, in the thermal electric energy por-
20 tion of the clean energy requirement established in
21 paragraph (3), clean energy associated with—

22 (A) installing thermal clean energy on site
23 at Department facilities and retaining cor-
24 responding renewable and clean attributes; and

1 (B) fulfilling the requirements of the en-
2 ergy policy of the Department as provided in
3 section 2911 of title 10, United States Code;

4 (8) improve water use efficiency and manage-
5 ment, including stormwater management, by—

6 (A) reducing potable water consumption
7 intensity, measured in gallons per gross square
8 foot, by 36 percent by fiscal year 2025 through
9 reductions of 2 percent annually through fiscal
10 year 2025 relative to a baseline of the water
11 consumption of the Department in fiscal year
12 2007;

13 (B) installing water meters and collecting
14 and using building and facility water balance
15 data to improve water conservation and man-
16 agement;

17 (C) reducing the industrial, landscaping,
18 and agricultural water consumption, measured
19 in gallons, by 2 percent annually through fiscal
20 year 2025 relative to a baseline of the indus-
21 trial, landscaping, and agricultural water con-
22 sumption of the Department during fiscal year
23 2010; and

1 (D) installing appropriate green infrastruc-
2 ture features on Department property to help
3 with stormwater and wastewater management;

4 (9) improve building efficiency, performance,
5 and management by—

6 (A) ensuring, for fiscal year 2021 and each
7 subsequent fiscal year, that the new construc-
8 tion of any Department building larger than
9 5,000 gross square feet that enters the plan-
10 ning process is designed to achieve energy net-
11 zero and, water or waste net-zero by fiscal year
12 2035;

13 (B) identifying, beginning in fiscal year
14 2021, as part of the planning requirements of
15 section 3, a percentage of at least 15 percent,
16 measured by number or total square footage, of
17 the existing Department buildings larger than
18 5,000 gross square feet that will, by fiscal year
19 2030, comply with the revised Guiding Prin-
20 ciples for Federal Leadership in High Perform-
21 ance and Sustainable Buildings (Guiding Prin-
22 ciples), and will reach 100 percent conformance
23 with the Guiding Principles for building inven-
24 tory by 2050;

1 (C) identifying, as part of the planning re-
2 quirements of this section, a percentage of the
3 existing buildings of the Department that are
4 larger than 5,000 gross square feet and in-
5 tended to be energy, waste, or water net-zero
6 buildings by fiscal year 2030, and implementing
7 actions that will allow those buildings to meet
8 that target;

9 (D) including in all new Department lease
10 solicitations for buildings or facilities larger
11 than 10,000 rentable square feet—

12 (i) criteria for energy efficiency either
13 as a required performance specification or
14 as a source selection evaluation factor in
15 best-value tradeoff procurements; and

16 (ii) requirements for building lessor
17 disclosure of carbon emission or energy
18 consumption data for any portion of the
19 building occupied by the Department that
20 may be provided by the lessor through sub-
21 metering or estimation from prorated occu-
22 pancy data, whichever is more cost-effec-
23 tive;

24 (E) including in the planning for new
25 buildings or leases cost-effective strategies to

optimize sustainable space usage and consideration of existing community transportation planning and infrastructure, including access to public transit; and

(F) including the incorporation of climate-resilient design and management elements into the operation, repair, and renovation of existing Department buildings and the design of new Department buildings;

(10) promote sustainable acquisition and procurement by ensuring that environmental performance and sustainability factors are included for all applicable procurements in the planning, award, and execution phases of the acquisition by—

(A) preferentially purchasing—

(i) recycled content products designated by the Environmental Protection Agency;

(ii) energy and water efficient products and services identified by the Environmental Protection Agency and the Department of Energy; and

(iii) BioPreferred and biobased products, as designated by the Department of Agriculture;

1 (B) purchasing sustainable products and
2 services identified by the Environmental Protec-
3 tion Agency;

4 (C) purchasing products or services that—

5 (i) meet or exceed specifications,
6 standards, or labels recommended by the
7 Environmental Protection Agency that
8 have been determined to assist agencies in
9 meeting their needs and further advance
10 sustainable procurement goals; or

11 (ii) meet environmental performance
12 criteria developed or adopted by voluntary
13 consensus standards bodies consistent with
14 section 12(d) of the National Technology
15 Transfer and Advancement Act of 1995
16 (15 U.S.C. 272 note(d));

17 (D) acting, as part of the implementation
18 of planning requirements under section 3, until
19 the Department achieves at least 95 percent
20 compliance with the BioPreferred and biobased
21 purchasing requirement in this paragraph, to—

22 (i) establish annual targets for the
23 number of contracts to be awarded with
24 BioPreferred and biobased criteria and the
25 dollar value of BioPreferred and biobased

1 products to be delivered and reported
2 under those contracts in the following fis-
3 cal year, by considering—

4 (I) the dollar value of designated
5 BioPreferred and biobased products
6 reported in previous years;

7 (II) the specifications reviewed
8 and revised for inclusion of BioPre-
9 ferred and biobased products; and

10 (III) the number of applicable
11 product and service contracts to be
12 awarded, including construction, oper-
13 ations and maintenance, food services,
14 vehicle maintenance, and janitorial
15 services; and

16 (ii) ensure contractors submit timely
17 annual reports on BioPreferred and
18 biobased purchases; and

19 (E) reducing copier and printing paper use
20 and acquiring uncoated printing and writing
21 paper containing at least 30 percent post-con-
22 sumer recycled content or greater; and

23 (11) implement energy savings performance
24 contracts for Department buildings by—

1 (A) using energy savings performance con-
2 tracting as a tool to help meet energy efficiency
3 and management goals while implementing life-
4 cycle cost-effective energy efficiency and clean
5 energy technology and water conservation meas-
6 ures; and

7 (B) providing annual Department targets
8 for performance contracting for energy savings
9 for fiscal year 2021 and subsequent fiscal years
10 as part of the planning requirements of section
11 3.

12 (b) STRATEGIC SUSTAINABILITY PERFORMANCE
13 PLAN.—For each of fiscal years 2021 through 2040, the
14 Secretary of Defense shall develop, implement, and annu-
15 ally update an integrated Strategic Sustainability Per-
16 formance Plan for the Department. Not later than 180
17 days before the end of the fiscal year, each year the Sec-
18 retary shall submit to Congress the plan for the Depart-
19 ment for the subsequent fiscal year. Each such plan shall
20 be made publicly available on the website of the Depart-
21 ment.

22 (c) LIMITATIONS.—This section shall apply with re-
23 spect to activities, personnel, resources, and facilities of
24 the Department that are located within the United States.
25 The Secretary of Defense may provide that this section

1 shall apply in whole or in part with respect to the activi-
2 ties, personnel, resources, and facilities of the Department
3 that are not located within the United States, if the Sec-
4 retary determines that such application is in the interest
5 of the United States.

6 (d) WAIVER AUTHORITY.—

7 (1) IN GENERAL.—The Secretary of Defense
8 may waive the requirements of this section with re-
9 spect to a particular activity or facility of the De-
10 partment if the Secretary determines such a waiver
11 is in the national security interests of the United
12 States.

13 (2) NOTICE.—Not later than 30 days after the
14 Secretary issues a waiver under subsection (a), the
15 Secretary shall submit to the chair and ranking
16 member of the Committees on Armed Services of the
17 Senate and House of Representatives notice of the
18 waiver and the reason for the waiver.

19 (e) DEFINITIONS.—In this section:

20 (1) The term “advanced energy meters” means
21 those energy meters that meet the requirements for
22 certification as defined by the Leadership in Energy
23 and Environmental Design (LEED) program as
24 maintained by the U.S. Green Building Council
25 (USGBC).

1 (2) The term “average greenhouse gas intensity
2 of power generation on the United States electric
3 grid” means the total net greenhouse gas emissions
4 from the electricity sector in the previous fiscal year
5 as measured in carbon dioxide equivalents and deter-
6 mined by the Energy Information Administration in
7 consultation with the Environmental Protection
8 Agency, divided by the national net power generation
9 over the same period as determined by the Energy
10 Information Administration.

11 (3) The term “best-value tradeoff procure-
12 ments” means a process by which the Government
13 considers whether it is in the best interest of the
14 Government to award a contract to an entity other
15 than the lowest price offeror or other than the high-
16 est technically rated offeror based on established
17 evaluation factors.

18 (4) The term “clean energy” means any energy
19 produced by a generation project that is at least 50
20 percent less greenhouse gas intensive on a marginal
21 basis as measured by carbon dioxide equivalents per
22 megawatt-hour than the average greenhouse gas in-
23 tensity of power generation on the United States
24 electric grid over the previous fiscal year at the time
25 of contracting.

1 (5) The term “clean energy attributes” means
2 the technology and non-energy attributes that rep-
3 resent proof that 1 megawatt-hour of electricity was
4 generated from an eligible clean energy resource,
5 that can be sold separately from the underlying ge-
6 neric electricity with which they are associated by
7 sources of clean energy placed into service within 10
8 years prior to the start of the fiscal year.

9 (6) The term “climate resilient design” means
10 to design assets to prepare for, withstand, respond
11 to, or quickly recover from disruptions due to severe
12 weather events and climate change for the intended
13 life of the asset.

14 (7) The term “Department facility” means any
15 building or collection of buildings, grounds, or struc-
16 tures, as well as any fixture or part thereof, which
17 is owned by the Department of Defense or that is
18 held by the Department under a lease-acquisition
19 agreement under which the Department will receive
20 fee simple title under the terms of such agreement
21 without further negotiation.

22 (8) The term “energy net zero” means a build-
23 ing where the total energy used by the building on
24 an annual basis is equal to the amount of clean en-
25 ergy created in site.

1 (9) The term “equal value replacement renew-
2 able energy certificates” means a quantity of renew-
3 able energy certificates equal to the number of
4 megawatt-hours of clean electricity generated from
5 an eligible renewable energy resource.

6 (10) The term “greenhouse gas” means carbon
7 dioxide, methane, nitrous oxide, hydrofluorocarbons,
8 perfluorocarbons, nitrogen trifluoride, sulfur
9 hexafluoride, and any other substance so identified
10 by the Administrator of the Environmental Protec-
11 tion Agency.

12 (11) The term “greenhouse gas intensity on a
13 marginal basis” means the marginal fossil fuel use
14 multiplied by the lower heating value of the fossil
15 fuel, as defined by the Energy Information Adminis-
16 tration, multiplied by the carbon dioxide emissions
17 coefficients of the fossil fuel, as defined by the En-
18 ergy Information Administration. If a project uses
19 no fossil fuel, the marginal greenhouse gas emissions
20 are defined as zero.

21 (12) The term “green infrastructure features”
22 means features of infrastructure which use natural
23 hydrologic features to manage water and provide en-
24 vironmental and community benefits.

1 (13) The term “life-cycle cost-effective” means
2 the costs of a product, project, or measure during
3 the life of the product, project, or measure are esti-
4 mated to be equal to or less than the current or
5 standard practice or product.

6 (14) The term “marginal greenhouse gas emis-
7 sions” means the marginal fossil fuel use multiplied
8 by the lower heating value of the fossil fuel, as de-
9 fined by the Energy Information Administration,
10 multiplied by the carbon dioxide emissions coeffi-
11 cients of the fossil fuel, as defined by the Energy In-
12 formation Administration. If a project uses no fossil
13 fuel, the marginal greenhouse gas emissions are de-
14 fined as zero.

15 (15) The term “marginal fossil fuel use” means
16 the fossil fuel combusted to produce energy by the
17 project, measured in metric tons per year, minus
18 any existing fossil combustion, measured in metric
19 tons per year, within the same system that is deter-
20 mined by the Administrator of the Environmental
21 Protection Agency in consultation with the Secretary
22 of Energy and Administrator of the Energy Infor-
23 mation Administration to be necessary to the pro-
24 duction of the contracted energy generation and

1 would have been consumed regardless of the addition
2 of the contracted energy generation.

3 (16) The term “energy savings performance
4 contract” means a contract that—

5 (A) provides for the performance of serv-
6 ices for the design, acquisition, installation,
7 testing, and, where appropriate, operation,
8 maintenance, and repair, of an identified energy
9 conservation measure or series of measures at
10 1 or more locations; and

11 (B) with respect to an agency facility that
12 is a public building (as such term is defined in
13 section 3301 of title 40, United States Code),
14 is in compliance with the prospectus require-
15 ments and procedures of section 3307 of title
16 40, United States Code.

17 (17) The term “power usage effectiveness”
18 means the ratio obtained by dividing the total
19 amount of electricity and other power consumed in
20 running a data center by the power consumed by the
21 information and communications technology in the
22 data center.

23 (18) The term “renewable attributes” means
24 the environmental benefits associated with 1 mega-

1 watt-hour of electricity generated from a renewable
2 energy resource.

3 (19) The term “renewable energy certificate”
4 means the technology and non-energy attributes that
5 represent proof that 1 megawatt-hour of electricity
6 was generated from an eligible renewable energy re-
7 source, that can be sold separately from the under-
8 lying generic electricity with which they are associ-
9 ated and were produced by sources of renewable en-
10 ergy placed into service within 10 years prior to the
11 start of the fiscal year.

12 (20) The term “resiliency” means the ability to
13 maintain or quickly restore functionality or use of
14 applicable infrastructure following a disruptive exter-
15 nal event including, but not limited to, severe
16 storms, extreme heat, flooding, and earthquakes.

17 (21) The term “source selection evaluation fac-
18 tor” means factors an agency uses to determine
19 which of several competing proposals submitted in
20 response to an request for proposal would best meet
21 the agency’s needs.

22 (22) The term “sustainability” means a meas-
23 ure of the ability of a development, infrastructure
24 project, or of general Department operations to meet
25 current operational needs without compromising the

1 ability of future generations to meet these needs
2 through the depletion of strategic resources, long-
3 term environmental harm or pollution, contributing
4 to an unsafe climate, or any other measures as
5 deemed by the Secretary with consultation from the
6 Administrator of the Environmental Protection
7 Agency and Chair of the Council on Environmental
8 Quality.

9 (23) The term “United States” means the fifty
10 States, the District of Columbia, the Commonwealth
11 of Puerto Rico, Guam, American Samoa, the United
12 States Virgin Islands, and the Northern Mariana Is-
13 lands, and associated territorial waters and airspace.

14 (24) The term “waste net zero” refers to any
15 building which through the reduction, reuse, recy-
16 cling, composting, or recovery of solid waste streams
17 (with the exception of any hazardous materials or
18 medical waste) results in the elimination of any
19 waste that is sent for disposal to landfills or inciner-
20 ators.

21 (25) The term “water balance” means a com-
22 parison of the water supplied to a defined system to
23 the water consumed by that system in order to iden-
24 tify the proportion of water consumed for specific

1 end-uses and ensure potential water leaks in the sys-
2 tem are addressed.

3 (26) The term “water net zero” means any
4 building which returns water to the original water
5 source such that the annual water consumption is
6 equivalent to the alternative water use plus water re-
7 turned to the original source over the course of a
8 year through practices that minimize total water
9 consumption, maximize alternative water sources,
10 and minimize wastewater discharge from the build-
11 ing.

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